

deviations are not the result of failure in the construction of the buildings, but that the deviation has been the result of preconcerted design, to prevent the appearance of depression in the middle, which an extended horizontal line of cornices, beams, &c., always has, if not raised a little in that part. This effect or defect is well known to barn-builders of the present day, who as the professor of architecture in the Royal Academy of Arts remarked in his last lecture, provide against it by making the ridge of the roof round or *hog-backed* as it is termed, but I question if this raising in the middle is entirely for the purpose of correcting the visual delusion. May it not be to correct a defect they know from experience to arise from the roof sagging or sinking in the middle?

We are very much indebted to Mr. Penrose for having communicated the facts of the curved lines existing in several temples, and as his attention was directed to the ascertaining of this fact, and his researches made with reference to that object, his statements become in consequence the more valuable, and carry with them the impress of accuracy and truth.

Some observations have been also made respecting a direction of Vitruvius, that the faces of the architrave and frieze, and portions of the cornice should incline forwards at the top. I can only say, that my measurements shew the Parthenon to be the reverse as regards the architrave and frieze, which both recede eight-tenths of an inch from the upright (see the annexed sketch); and on referring to Stuart and Revett's works on Athens, I find a similar coincidence, but the face of the corona certainly does incline as Vitruvius directs; future researches may decide the point, for the non-existence of it at one building is not a sufficient authority for deciding the question.

Before dismissing the subject of the Parthenon, I would beg to call your attention for a few minutes to some peculiarities in the manner of constructing the architrave, frieze, and other parts of this temple which are not shewn so distinctly in Stuart, as subsequent researches and perhaps subsequent dilapidation has enabled others as well as myself to do.

The architrave, for instance, is formed of four stones, three visible on the outside, and one not seen externally.

The frieze has the metopes and triglyphes rebated together, and the inner face formed by distinct stones, there being a vacancy between; see A in figure.

The outer cornice is one stone in height, and within the peristyle it is formed in two stones. The tympanum has upright stones on the outside, in the height, but the inside is formed in seven courses. The column is in twelve stones including the capital. The upper moulding of the pediment is hollowed out at the back, and a block of stone is laid on it; but the object of this peculiar construction is not very apparent, and has not been satisfactorily explained by any one whom I have consulted. The annexed engraving, from accurate measurements, will explain the construction clearly.

The beds of the various stones composing the columns, are sunk about three-quarters of the tenth of an inch, leaving a raised margin about an inch and a half on the outer edge. The side walls of the cella are single blocks the whole width of the walls; with this latter exception, we see that the temple is not constructed of large, although it is of solid pieces of marble, but of rather small blocks; but the whole is so accurately and beautifully worked, and solidly bedded, that the joints are in many parts not perceptible, and even in the ruined state of the side walls, which are in great part thrown down, it was with difficulty my fellow-traveller, Mr. Catherwood, and myself, could find the vertical joints of these walls.

Before resuming my seat, I perhaps may be allowed to remind our younger members, who may be contemplating a tour to the sunny climes of Greece and Italy, that fresh subjects of research are now open to them. It has often been remarked by those about to travel, that it is useless to measure or draw the antiquities; that the buildings have been so often measured, drawn, and published, that every thing about them is well known. Who can beat Stuart in accuracy? some say; but let these gentlemen bear in mind, that opportunity for further investigation are constantly

occurring. The very dilapidations of the buildings afford means of discovering their mode of construction, which the building in a more perfect state did not disclose to a former traveller: the removal of incumbrances, excavations, and other discoveries, afford a never-failing subject for the investigation of an architect of research and observation; and if it be worth while to draw and measure, it is worth while doing so accurately, carefully, and minutely. It is an old adage, that what is worth doing is worth doing well. Those also derive the most advantage in their travels who are the best prepared beforehand, for they know at once to what object to direct their attention. I hope they will bear in mind that the curved lines, the painted decorations, the inclination of the high columns mentioned by Vitruvius, and also of the entablature, are points for investigation, and open a new field for research and application; but have no doubt advantage will be taken of these late discoveries, and that the subjects will be carefully investigated, and that we shall be indebted to some of the members around us, for much interesting information and particulars on these points. In conclusion, I trust that as the subject of classic architecture has been again brought to our notice by the papers read at this and our last meeting, the study of Greek architecture will be revived, and looked upon as the foundation or ground-work (to speak rather professionally) for the study of architecture. I am aware that of late years our course of practice has taken a different channel; but fashion changes, and we may live to see "pagan architecture," as it is sometimes termed, rank again as fit to be used even for Christian purposes; but without attempting to offer an opinion on the relative merits or capabilities of Greek, Roman, Italian, or pointed architecture, I will conclude by observing, that as travelling to an architect is like the university to a man of letters—the last stage of a regular education; so is the study of classical models to the student in architecture like that of the classic authors to the scholar and gentleman, the first step to that regular education.

WESTMINSTER COURT OF SEWERS.

BETWEEN forty and fifty commissioners assembled at the ordinary court on Friday, the 6th inst., attracted, no doubt by the various notices of motion given at the previous court, as inserted in the preceding number of our journal. Capt. Bague, R.N., was chosen chairman. A great number of applications for sewers and drains were granted. Some appeals were heard. A clerk of the works (of the name of Hogg), under the office of Woods and Works, was fined 5*l.* for refusing to attend to his summons from the court. Hogg was then re-summoned for the next court, with the intimation that he would be more severely fined if he still continued to treat the court with contempt.

At 2 o'clock the important business commenced, by Mr. Mayhew expressing a wish to simplify the discussion of the court by withdrawing his motion, as it was his intention to support the appointment of Mr. Phillips by voting for Mr. Cumberlege's amendment. The court allowed Mr. Mayhew to withdraw his notice of motion.

Mr. Le Breton said he had no voice to make a long speech, and therefore he would very briefly state his views. The court had refused to fix the salary of chief surveyor at either 400*l.* or 500*l.* or 600*l.* a year. He begged to assure the court that he was no party to the notice of motion on the day's business-paper, which had for its object the bringing back Mr. Hawkins at a salary of 450*l.* a year. He thought the officer wanted should be an engineer of eminence, and the appointment thrown open to public competition. He would therefore move, and was seconded by Mr. Wm. L. Donaldson—"That all the orders of court of the 13th Feb. 1846, as to the surveyor's salary, be rescinded, and that the salary of such surveyor be 500*l.* per annum, and that steps be taken to invite candidates for such office."

Mr. Cumberlege moved the amendment of which he had given notice, to the effect—"That Mr. Phillips be forthwith appointed, at a salary of 250*l.* per annum, to the office of chief surveyor, on a trial of six months, on account of the vacancy which has so long sub-

sisted in that office, and that all orders of court which interfere with this appointment be rescinded." Seconded by Mr. Brascombe.

Mr. Cumberlege proceeded to shew that much, in his opinion, of the doubt and delay had arisen, from the extravagant notions of the qualifications of the chief surveyor entertained by some commissioners. The terms surveyor and engineer had most extensive signification. Sir Christopher Wren was the surveyor of St. Paul's; Inigo Jones, surveyor of the king's buildings; Sir John Vanburgh, surveyor of the palace of Woodstock, and every architect, however eminent he might be, was the surveyor for the time being of the particular work in progress. The term engineer had also its extensive signification: works incidental to a long line of railway, a breakwater, bridges, such as that now erecting over the Danube, where the water was 25 feet deep at low-water, and the freshes so immense, that the waters rose with great rapidity above 30 feet. It was evident the court required no such surveyor or engineer, yet to listen to some honourable commissioners it would be supposed an absolute necessity to have such talent, and that it could be obtained for 400*l.*, 500*l.*, or 600*l.* per annum. These appeared to him exaggerated notions of the requirements, fallacious in themselves, and impossible to procure in any officer likely to accept the surveyorship of the sewers in the Westminster jurisdiction. The honourable commissioner then proceeded to read extracts from the printed statements of the former chairman of the court, Mr. T. L. Donaldson, as to that "great king of dykes," the King's Scholars' Pond Sewer. Notwithstanding the immense encomiums lavished upon that work, he (Mr. Cumberlege) was aware, as well as the court itself, that it had not escaped the charge of being now even a greater nuisance than the nuisance it was intended to remove. The court should now turn from the imaginary picture, from "the faultless monster that the world ne'er saw," to the actual person wanted by the court to fill the office of chief surveyor. He would not be required, like Wren, to build cathedrals, or like Inigo Jones, to build palaces, nor to build railways, bridges, or viaducts; but to build, rebuild, or repair sewers which, under ordinary circumstances, average 5 or 6 feet in height, by 2 or 3 feet in width. Now these works, he admitted, required considerable judgment, skill, and science; but then it was only judgment, skill, and science in a comparatively limited field. The surveyor wanted by this court must, to do his duty properly, be for hours and hours in the sewers. How could that able report of Mr. Phillips, on the Lisson-grove district sewerage, have been in the hands of each commissioner had not Mr. Phillips been for a length of time in all those sewers? Mr. Cumberlege then stated that he had forwarded Mr. Phillips's report, plan, and section of what he had proposed to do in that district, to Mr. Roe, the eminent engineer of the Holborn and Finsbury sewers, and also asked that gentleman to favour him with his opinions as to Mr. Phillips, qualifications for the office of chief surveyor to this court. He then read the reply.

Sewers Office, Hatton-garden,
March 5th, 1846.

Sir,—In reply to your inquiry, I beg to state that I consider your amendment one that would tend (if carried) to serve the public interest. I believe Mr. Phillips to be competent for the situation; so much so that I have no hesitation in saying that I know no one more likely to do your commission eminent service, should you succeed in giving him an opportunity for a trial.—I am, Sir, yours truly,

C. N. Cumberlege, Esq. JOHN ROE.

N.B. Mr. Phillips's report on Stephen's street, &c., &c., does him much credit.

It was because in his opinion that Mr. Phillips possessed the abilities to fill the office of chief surveyor with credit to himself and advantage to the public, that he had put forward the amendment. The treatises on sewers by Mr. Phillips published in *THE BUILDER*, shewed great originality, and they were distinguished also by their intelligence and common sense. Mr. Phillips was also now preparing for publication a new treatise on sewerage, with illustrations, which proved his industry and the great interest he had in the subject. Let him, therefore, by the vote of this day, have the six months' trial which the